Designer & Application Notes



Security Termination



Applications



Security termination solve the problem of unauthorized or accidental removal of terminations and potential damages to RF or microwave assemblies caused by high levels of reflected signals.

1. Test Equipment

Maintains accuracy and repeatability of the measurements and protects the test equipment.



Figure 1

2. Test Laboratories

Can be used in calibrated test setups to insure consistency and repeatability of the tests.



Figure 2

3. Production Equipment

To terminate RF test points not designated to be accessed by users for security and/or equipment protection reasons.

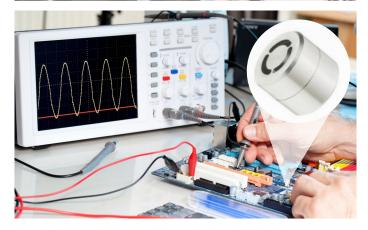


Figure 3

4. High Power Equipment

Ensuring that the test points are always properly terminated to reduce possibilities of equipment damage due to high levels of reflected signals.





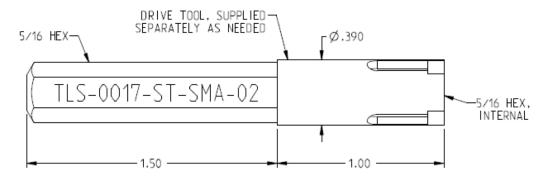
Technical Information



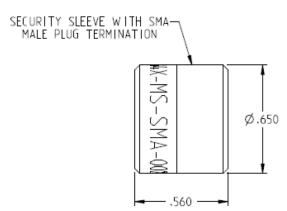
SMA Male Security Termination			
Part Number	Frequency, GHz	Internal Termination	VSWR, max.
TRM-2443-MS-SMA-02	26.5	TRM-2443-M0-SMA-02	1.3
TRM-2444-MS-SMA-02	18	TRM-2444-M0-SMA-02	1.19
TRM-2444-MS-SMA-02	8	TRM-2444-M0-SMA-02	1.11
Nominal Impedance, Ω		50	
Average power, W		0.5*	
Operating Temp., °C		-55~125	
Material and Finish		Passivated stainless steel	
Application Tool		TLS-0017-ST-SMA-02	
* at 25°C, derated to 0 W at 125°C			

Mechanical Dimensions

Application Tool Model TLS-0017-ST-SMA-02



Security Termination Model TRM-244x-MS-SMA-02



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Product Training Materials (PTM)



Security termination performs an electrical function of standard RF termination but can be mechanically removed only with a tool specifically designed for this purpose. Inside of the shell of the security termination is Midwest standard termination model TRM-244x-M0-SMA-02 selected upon the required frequency of operation. Security termination should be applied by hand first to ensure proper threading of the SMA interface. Tool should be used at the end to create a final recommended SMA torque and prevent the security termination from being removed without the tool.

Applying the Security Termination

Step 1

Apply the security termination by hand until you feel the shell slipping



Step 2

Align the security termination tool with the security terminations openings and insert inside of the termination. Continue turning the tool by hand in clockwise direction until the termination is hand tight.



Step 3

Apply the final mating torque using an SMA torque wrench. For brass SMA interfaces 3-5 in-lbs, for stainless steel SMA interfaces 7-10 in-lbs



Step 4

Security termination is now properly mated, it electrically terminates the port as per its electrical specifications and can only be removed using a proper tool.





Product Training Materials (PTM)



Removal of the Security Termination

Step 1

Align the security termination tool with the security terminations openings and insert inside of the termination. Using an SMA wrench untighten the part in counter clockwise direction.



Step 2

Continue turning the tool by hand in counter-clockwise direction until the termination is completely lose.



Step 3

Remove the security termination with your hands and keep in safe location together with the tool.

